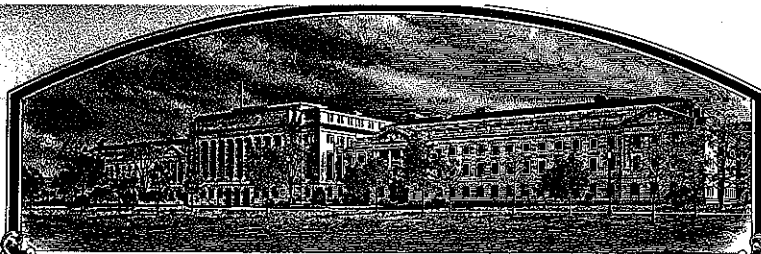


No.

200600160



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Shamrock Seed Company, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Citori'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-ninth day of November, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

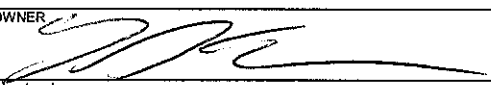


U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Shamrock Seed Company, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME SSC 1128		3. VARIETY NAME Citori (Cleared) R140 3/13/06	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 3 Harris Place Salinas, CA 93901 USA		5. TELEPHONE (include area code) 831-771-1500		<div style="border: 1px solid black; padding: 5px;"> FOR OFFICIAL USE ONLY PVPO NUMBER <div style="font-size: 2em; font-weight: bold;">200600160</div> FILING DATE <div style="font-size: 1.5em;">March 13, 2006</div> </div>	
		6. FAX (include area code) 831-771-1517			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION CA		9. DATE OF INCORPORATION January 1, 1983	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Larry D. Knerr, Ph.D. Shamrock Seed Company, Inc. 3 Harris Place Salinas, CA 93901 USA				<div style="border: 1px solid black; padding: 5px;"> FILING AND EXAMINATION FEES: <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">F E E S R E C E I V E D</div> <div> \$ 4,382 - DATE 3/13/06 CERTIFICATION FEE: \$ 768 - DATE 10/12/2007 </div> </div> </div>	
11. TELEPHONE (Include area code) 831-771-1500		12. FAX (Include area code) 831-771-1517		13. E-MAIL	
14. CROP KIND (Common Name) Lettuce		16. FAMILY NAME (Botanical) Asteraceae		18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Lactuca sativa		17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)				20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (If "no", go to item 23)	
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g. <input checked="" type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)				21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
				22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)				24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 			SIGNATURE OF OWNER		
NAME (Please print or type) Larry D. Knerr			NAME (Please print or type)		
CAPACITY OR TITLE Research Director		DATE February 27, 2006		CAPACITY OR TITLE DATE	

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

General E-mail: PVP@mail.usda.gov

Homepage: <http://www.ams.usda.gov/science/pvpo/PVPIndex.htm>

SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

First Sale: United States, July 29, 2005

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

PVP Application, Romaine Lettuce (*Lactuca sativa*) 'Citori'

EXHIBIT A

Origin and Breeding History of the Variety

'Citori' was developed from an original cross, made in 1996. The female parent in this cross is the variety 'Presidio'. The male parent in this cross is the variety 'Darkland'. Through pedigree selection for plant type, a stable and uniform F₆ line was selected in 2000 that was used as stock seed to produce 'Citori'. Each generation of selection was carried out in Salinas, California (F₂-F₃) or Yuma, Arizona (F₄-F₆). Selection criteria in each generation/location included, leaf color, head shape, head size, head weight, and straightness of ribs. 'Citori' has been reproduced and judged stable for the past five generations (2001 through 2005). 'Citori' is uniform for all traits as described in Exhibit C and shows no variants. The pedigree, using notation adhered to by Shamrock Seed Company, for 'Citori' is noted below.

[Presidio x Darkland]-B2B4B(Bulk)

PVP Application, Romaine Lettuce (*Lactuca sativa*) 'Citori'

EXHIBIT B

Statement of Distinctness

'Citori' is most similar to the variety 'PIC 714'. The most widely grown, similar variety in the same planting slot as 'Citori' is 'Green Towers'. 'Citori' has a darker leaf color than 'PIC 714' and 'Green Towers'. 'Citori' is earlier to mature and has a higher head weight than either 'PIC 714' or 'Green Towers'. 'Citori' contains the *cor* gene and is resistant to corky root rot disease of lettuce, incited by the bacteria *Sphingomonas suberifaciens*. 'PIC 714' and 'Green Towers' do not contain the *cor* gene and are susceptible to corky root rot disease of lettuce. The following table demonstrates the color and maturity differences among these varieties:

Table 1.

Variety	Days to Maturity	Color at Maturity*	Corky Root Reaction
Citori	81-91	138A	resistant
PIC 714	84-92	138B	susceptible
Green Towers	83-94	148B	susceptible

*As determined by RHS color chart.

Most importantly, 'Citori' produces a heavier head weight than either 'PIC 714' or 'Green Towers.' This difference was significant at the 95% confidence level (LSD 0.05), in each of three trials, as shown in the table on the following page.

PVP Application, Romaine Lettuce (*Lactuca sativa*) 'Citori'

EXHIBIT B

Statement of Distinctness

Table 2.

Head Weight at Maturity (grams)

Trial 1, Yuma, AZ, planting date 10/9/04

Variety	N	Mean	SD	LSD(0.05)
Citori	24	867.7	136.82	95.1
PIC 714	24	757.1	150.20	
Green Towers	24	687.5	109.86	

Trial 2, Yuma, AZ, planting date 10/17/05

Citori	24	940.2	69.73	56.7
PIC 714	24	855.4	93.46	
Green Towers	24	860.4	82.45	

Trial 3, Yuma, AZ, planting date 11/18/05

Citori	24	1053.1	68.87	61.4
PIC 714	24	905.0	88.87	
Green Towers	24	944.8	66.01	

PVP Application, Romaine Lettuce (*Lactuca sativa*) 'Citori'

EXHIBIT B, Attachment

Statement of Distinctness

Raw Data, Mature Head Weight (grams)

Trial 1

Citori	PIC 714	Green Towers
800	625	750
1115	750	615
850	830	605
795	675	720
835	760	790
650	700	550
870	815	720
885	800	930
755	665	705
1025	575	775
855	670	555
750	750	600
910	855	755
1075	1050	725
820	625	625
700	450	525
875	765	700
1175	775	775
830	745	510
900	1200	825
1005	740	590
950	675	575
750	900	805
650	775	775
800	625	750

Trial 2

Citori	PIC 714	Green Towers
1050	805	875
900	750	1020
935	955	885
885	670	745
970	875	810
860	990	870
1125	800	810
945	705	900
955	795	825
965	915	950
855	900	655
1005	785	835
995	890	925
850	995	860
960	925	880
1000	840	910
980	805	850
905	950	755
875	840	990
955	915	830
810	720	985
900	790	875
955	965	800
930	950	810
1050	805	875

PVP Application, Romaine Lettuce (*Lactuca sativa*) 'Citori'

EXHIBIT B, Attachment

Statement of Distinctness

Raw Data, Mature Head Weight (grams)

Trial 3

Citori	PIC 714	Green Towers
1095	955	940
980	900	1080
1115	980	990
1200	900	885
955	755	1005
995	675	920
1055	880	930
1120	980	995
975	970	980
1100	800	850
1000	975	910
1090	960	960
1045	850	1065
1005	955	900
1005	885	965
1045	850	995
1105	815	915
1070	1040	855
1040	990	975
990	920	805
1225	905	890
1000	800	1005
1060	1005	960
1005	975	900
1095	955	940

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

Exhibit C

**OBJECTIVE DESCRIPTION OF VARIETY
Lettuce (*Lactuca sativa* L.)**

NAME OF APPLICANT (S) Shamrock Seed Company, Inc.	TEMPORARY OR EXPERIMENTAL DESIGNATION SSC 1128	VARIETY NAME Citori
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) 3 Harris Place Salinas, CA 93901 USA		FOR OFFICIAL USE ONLY PVP NO NUMBER 200600160

Place the appropriate number that describes the varietal character in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less. Measured data should be the mean of an appropriate number (at least 20) of well space plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

The Location of the Test Area is: Gilroy, CA	Color System Used: RHS
--	----------------------------------

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties, which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Application Variety (a1) Citori Most Similar Variety (c1) PIC 714

Standard Regional Check Variety (c2) Green Towers

1. PLANT TYPE: (See List of Suggested Check Varieties on Page 8)

01 = Cutting/Leaf
02 = Butterhead
03 = Bibb

04 = Cos or Romaine
05 = Great Lakes Group
06 = Vanguard Group

07 = Salinas Group
08 = Eastern (Ithaca) Group
09 = Stem

10 = Latin
11 = Other (Specify) _____

(a1)

(c1)

(c2)

2. SEED:

(a1) } **COLOR**
1 = White (Silver Gray)
(c1) } 2 = Black (Grey Brown)
(c2) } 3 = Brown (Amber)

(a1) } **LIGHT DORMANCY**
1 = Light Required
(c1) } 2 = Light Not Required
(c2) }

(a1) } **HEAT DORMANCY**
1 = Susceptible
(c1) } 2 = Not Susceptible
(c2) }

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day-old seedling grown under optimal conditions.

SHAPE OF COTYLEDONS: 1 = Broad 2 = Intermediate 3 = Spatulate

(a1)

(c1)

(c2)

SHAPE OF FOURTH LEAF:

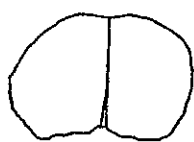
(a1)

(c1)

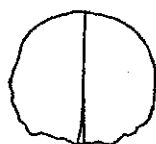
(c2)

8

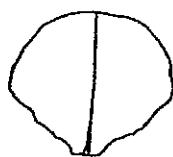
3. COTYLEDON TO FOURTH LEAF STAGE: (continued)



1. Transverse oval



2. Round



3. Oval



4. Elongated



5. Lanceolate



6. Pinnately lobed

LENGTH/WIDTH INDEX OF FOURTH LEAF: L/W x 10

(a1) (c1) (c2)

APICAL MARGIN:

1 = Entire

2 = Crenate/Gnawed

3 = Finely Dentate

4 = Moderately Dentate

5 = Coarsely Dentate

6 = Incised

7 = Lobed

8 = Other (Specify) _____

(a1) (c1) (c2)

BASAL MARGIN: (Use the options for Apical Margin above)

(a1) (c1) (c2)

UNDULATION:

1 = Flat

2 = Slight

3 = Medium

4 = Marked

(a1) (c1) (c2)

GREEN COLOR:

1 = Yellow Green

2 = Light Green

3 = Medium Green

4 = Dark Green

5 = Blue Green

6 = Silver Green

7 = Grey Green

(a1)
137-B(c1)
137-C(c2)
137-C

ANTHOCYANIN:

DISTRIBUTION:

1 = Absent

2 = Margin Only

3 = Spotted

4 = Throughout

5 = Other (Specify) _____

(a1) (c1) (c2)

CONCENTRATION:

1 = Light

2 = Moderate

3 = Intense

(a1) (c1) (c2)

ROLLING:

1 = Absent

2 = Present

(a1) (c1) (c2)

CUPPING:

1 = Uncupped

2 = Slight

3 = Markedly

(a1) (c1) (c2)

REFLEXING:

1 = None

2 = Apical Margin

3 = Lateral Margins

(a1) (c1) (c2)

4. MATURE LEAVES (Observe Harvest-Mature Outer Leaves)

NOTE: Provide color photo of a harvest-mature leaf which accurately shows color and margin characteristics.

MARGIN:**INCISION DEPTH:**
(deepest penetration
of the margin)

1 = Absent/Shallow (Dark Green Boston)

2 = Moderate (Vanguard)

3 = Deep (Great Lakes 659)

(a1)

2

(c1)

2

(c2)

2**INDENTATION:** (Finest divisions of the margin)

1 = Entire (Dark Green Boston)

4 = Crenate (Vanguard)

2 = Shallowly Dentate (Great Lakes 65)

5 = Other (Specify) _____

3 = Deeply Dentate (Great Lakes 659)

(a1)

4

(c1)

4

(c2)

4**UNDULATIONS OF THE
APICAL MARGIN:**

1 = Absent/Slight (Dark Green Boston) 2 = Moderate (Vanguard)

3 = Strong (Great Lakes 659)

(a1)

2

(c1)

2

(c2)

2**GREEN COLOR:**

1 = Very Light Green (Bibb)

3 = Medium Green (Great Lakes)

5 = Very Dark Green

2 = Light Green (Minetto)

4 = Dark Green (Vanguard)

6 = Other (Specify) _____

(a1)

4

(c1)

3

(c2)

3

138-A

138-B

138-B

ANTHOCYANIN:**DISTRIBUTION:**

1 = Absent

3 = Spotted (California Cream Butter)

5 = Other (Specify) _____

2 = Margin Only (Big Boston)

4 = Throughout (Prize Head)

(a1)

1

(c1)

1

(c2)

1**CONCENTRATION:**

1 = Light (Iceberg)

2 = Moderate (Prize Head)

3 = Intense (Ruby)

(a1)

(c1)

(c2)

SIZE:

1 = Small

2 = Medium

3 = Large

(a1)

3

(c1)

3

(c2)

3**GLOSSINESS:**

1 = Dull (Vanguard)

2 = Moderate (Salinas)

3 = Glossy (Great Lakes)

(a1)

0 1

(c1)

0 1

(c2)

0 1**BLISTERING:**1 = Absent/Slight
(Salinas)2 = Moderate
(Vanguard)3 = Strong
(Prize Head)

(a1)

0 2

(c1)

0 1

(c2)

0 1**LEAF THICKNESS:**

1 = Thin

2 = Intermediate

3 = Thick

(a1)

0 3

(c1)

0 3

(c2)

0 2**TRICHOMES:**

1 = Absent (Smooth)

2 = Present (Spiny)

(a1)

0 2

(c1)

0 2

(c2)

0 2**5. PLANT:****SPREAD OF FRAME LEAVES:**

(a1)

3 7

cm

(c1)

3 3

cm

(c2)

3 4

cm

5. PLANT: (continued)

HEAD DIAMETER: (Market Trimmed with Single Cap Leaf)

(a1) 3 7 cm

(c1) 3 3 cm

(c2) 3 4 cm

HEAD SHAPE:

1 = Flattened

3 = Spherical

5 = Non-Heading

2 = Slightly Flattened

4 = Elongate

6 = Other (Specify) _____

(a1) 0 5

(c1) 0 5

(c2) 0 5

HEAD SIZE CLASS:

1 = Small

2 = Medium

3 = Large

(a1) 0 3

(c1) 0 3

(c2) 0 3

HEAD PER CARTON:

(a1) 2 4

(c1) 2 4

(c2) 2 4

HEAD WEIGHT:

(a1) 1 2 1 3 g.

(c1) 0 9 3 3 g.

(c2) 0 9 6 1 g.

HEAD FIRMNESS:

1 = Loose

2 = Moderate

3 = Firm

4 = Very Firm

(a1) 1

(c1) 1

(c2) 1

6. BUTT:

SHAPE:

1 = Slightly Concave

2 = Flat

3 = Rounded

(a1) 3

(c1) 3

(c2) 3

MIDRIB:

1 = Flattened (Salinas)

2 = Moderately Raised

3 = Prominently Raised (Great Lakes 659)

(a1) 3

(c1) 3

(c2) 3

7. CORE:

DIAMETER AT BASE OF HEAD:

(a1) 4 2 mm

(c1) 3 8 mm

(c2) 3 2 mm

RATIO OF HEAD DIAMETER/CORE DIAMETER:

(a1) 0 8 . 8

(c1) 0 8 . 7

(c2) 1 0 . 6

CORE HEIGHT FROM BASE OF HEAD TO APEX:

(a1) 5 5 mm

(c1) 4 8 mm

(c2) 5 0 mm

8. BOLTING: (Give First Water Date: June 15, 2005)

NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

NUMBER OF DAYS FROM FIRST WATER DATE TO SEED STALK EMERGENCE: (summer conditions)

(a1) 0 5 4

(c1) 0 5 6

(c2) 0 5 6

BOLTING CLASS:

1 = Very Slow

3 = Medium

5 = Very Rapid

2 = Slow

4 = Rapid

(a1) 3

(c1) 3

(c2) 3

HEIGHT OF MATURE SEED STALK:

1 0 4

1 1 2

1 2 4

(a1) cm (c1) cm (c2) cm

8. BOLTING: (continued)**SPREAD OF BOLTER PLANT:** (At widest point)(a1) cm(c1) cm(c2) cm**BOLTER LEAVES:** 1 = Straight 2 = Curved(a1) (c1) (c2) **MARGIN:** 1 = Entire 2 = Dentate(a1) (c1) (c2) **COLOR:** 1 = Light Green 2 = Medium Green 3 = Dark Green(a1) (c1) (c2)

139-B

139-B

139-B

BOLTER HABIT:**TERMINAL INFLORESCENCE:** 1 = Absent 2 = Present(a1) (c1) (c2) **LATERAL SHOOTS:** 1 = Absent 2 = Present(a1) (c1) (c2) **BASAL SIDE SHOOTS:** 1 = Absent 2 = Present(a1) (c1) (c2) **9. MATURITY:** (earliness of harvest-mature head formation)

NOTE: Complete this section for at least one season.

SEASON	APPLICATION VARIETY No. of Days ¹			MOST SIMILAR VARIETY No. of Days ¹			STANDARD REGIONAL CHECK VARIETY No. of Days ¹		
Spring									
Summer									
Fall									
Winter	91	87	81	92	88	84	94	88	83

¹ First Water Date to Harvest

Give Planting Date(s) and Location(s):

Spring: _____

Summer: _____

Fall: _____

Winter: November 18, 2005 - Yuma, AZ; October 17, 2005 - Yuma, AZ; October 9, 2004 - Yuma, AZ

10. ADAPTATION:**PRIMARY REGIONS OF ADAPTATION** (tested and proven adapted):

0 = Not Tested 1 = Not Adapted 2 = Adapted

 Southwest (CA and/or AZ desert) West Coast Northeast North Central Southeast Other (Specify) _____

10. ADAPTATION: (Continued)

SEASON:

<input type="checkbox"/> Spring (Area _____)	<input type="checkbox"/> Fall (Area _____)
<input type="checkbox"/> Summer (Area _____)	<input checked="" type="checkbox"/> Winter (Area <u>Southwest</u>)

<input type="checkbox"/> 0	GREENHOUSE:	0 = Not Tested	1 = Not Adapted	2 = Adapted
<input type="checkbox"/> 2	SOIL TYPE:	1 = Mineral	2 = Organic	3 = Both

11. VIRAL DISEASES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Big Vein	(a1)	<input type="checkbox"/> 7	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7
Lettuce Mosaic	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Cucumber Mosaic	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Tomato Bushy Stunt, cause of dieback	(a1)	<input type="checkbox"/> 7	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7
Turnip Mosaic	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Beet Western Yellows	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Lettuce Infectious Yellows	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Other (Specify) _____	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>

12. FUNGAL/BACTERIAL DISEASES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Corky Root Rot (Races: _____)	(a1)	<input type="checkbox"/> 3	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7
Downy Mildew (Races: <u>CA V, VI, VII, VIII</u>)	(a1)	<input type="checkbox"/> 7	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7
Powdery Mildew	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Sclerotinia Drop	(a1)	<input type="checkbox"/> 7	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7
Bacterial Soft Rot (<i>Pseudomonas</i> spp. and others)	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Botrytis (Grey Mold)	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Verticillium Wilt	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Bacterial Leaf Spot	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Anthracnose	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Other (Specify) _____	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>

13. INSECTS:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Cabbage Loopers	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Root Aphids	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Green Peach Aphid	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>
Lettuce Aphid	(a1)	<input type="checkbox"/> 7	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 7

Pea Leafminer	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Other (Specify) _____	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>

14. PHYSIOLOGICAL STRESSES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Tipburn	(a1) <input type="text" value="5"/>	(c1) <input type="text" value="6"/>	(c2) <input type="text" value="5"/>
Heat	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Drought	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Cold	(a1) <input type="text" value="4"/>	(c1) <input type="text" value="5"/>	(c2) <input type="text" value="5"/>
Salt	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Brown Rib (Rib Discoloration, Rib Blight)	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Other (Specify) _____	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>

15. POST HARVEST STRESS:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Pink Rib	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Russet Spotting	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Rusty Brown Discoloration	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Internal Rib Necrosis (Blackheart, Grey Rib, Grey Streak)	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>
Brown Stain	(a1) <input type="text"/>	(c1) <input type="text"/>	(c2) <input type="text"/>

16. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

17. COMMENTS:

SUGGESTED CHECK VARIETIES

TYPE	CHECK VARIETY
1 Cutting/Leaf	Waldmann's Green
2 Butterhead	Dark Green Boston
3 Bibb	Bibb
4 Cos or Romain	Parris Island
5 Great Lakes Group	Great Lakes 659-700
6 Vanguard Group	Vanguard
7 Salinas Group	Salinas
8 Eastern Group	Ithaca
9 Stem	Celtuce
10 Latin	Little Gem

REFERENCES

- Bowring, J.D.C., 1969, "The Identification of Varieties of Lettuce (*Lactuca Sativa* L.)". Journal of the National Institute of Agricultural Botany 11:499-520. National Institute of Agricultural Botany, Cambridge, UK.
- Davis, R.M., K.V. Subbarao, R.N. Raid, and E.A. Kurtz, 1997. "Compendium of Lettuce Diseases". APS Press, St. Paul, MN.
- Michelmore, R.W., J. M. Norwood, D.S. Ingram, I.R. Crute and P. Nicholson. 1984. "The inheritance of virulence in *Bremia lactucae* to match resistance factors 3, 4, 5, 6, 8, 9, 10, and 11 in lettuce (*Lactuca sativa*)". Plant Pathology 32:176-177.
- Norwood, J.M., R.W. Michelmore, I.R. Crute and D.S. Ingram. 1983. "The inheritance of specific virulence of *Bremia lactucae* (Downy Mildew) to match R-factors 1, 2, 4, 6, and 11 in lettuce (*Lactuca sativa*)". Plant Pathology 32:176-177.
- Rodenburg, C.M., et al., 1960. "Varieties of Lettuce. An International Monograph", Instituut voor de Verdeling van Tuinbouwgewassen (IVT), Wageningen, NL.
- Ryder, E.J., 1999, *Lettuce, Endive, and Chicory*, CABI Publications, Wallingford, UK.

15



Citori

FOURTH TRUE LEAF



Citori
MATURE LEAF

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Shamrock Seed Company, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER SSC 1128	3. VARIETY NAME Citori
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 3 Harris Place Salinas, CA 93901 USA	5. TELEPHONE (Include area code) (831) 771-1500	6. FAX (Include area code) (831) 771-1517
7. PVPO NUMBER 200600160		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).


To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

**EXHIBIT F
DECLARATION REGARDING DEPOSIT**

NAME OF OWNER (S) Shamrock Seed Company, Inc.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 3 Harris Place Salinas, CA 93901 USA	TEMPORARY OR EXPERIMENTAL DESIGNATION SSC 1128
NAME OF OWNER REPRESENTATIVE (S) Larry D. Knerr, Ph.D.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 3 Harris Place Salinas, CA 93901 USA	VARIETY NAME Citori FOR OFFICIAL USE ONLY PVPO NUMBER 200600160

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.


 Signature

February 27, 2006

Date

19